

fledging American kestrels (*Falco sparverius*) taken from nest boxes in southwest Idaho. We removed birds from the box at 23–25 d of age and divided them into three groups. We maintained kestrels at 100%, 90%, or 80% of *ad libitum* body weights for 21 d. We measured movement with pedometers fitted backpack-style and collected blood samples once/wk. We used radioimmunoassay to measure corticosterone levels. Preliminary analysis suggests there may be a threshold body condition below which birds respond to restricted food by increasing activity levels. Male kestrels may be more sensitive to this threshold than females.

EFFECTS OF ROTENONE USE TO KILL "TRASH" FISH ON OSPREY PRODUCTIVITY AT A RESERVOIR IN OREGON

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We studied ospreys (*Pandion haliaetus*) nesting at two reservoirs in the Cascade Mountains of southern Oregon from 1988–92. Both reservoirs had nesting ospreys present in 1988 (11 and 27 occupied nests). Productivity rates at both locations were similar and judged to be excellent in 1988 and 1989. However, in the autumn of 1989 (after the ospreys migrated south), the reservoir with fewer nesting pairs was treated with rotenone to eliminate the brown bullhead population and any other fish. The reservoir was to be later restocked with rainbow trout. The response of nesting ospreys in 1990, 1991, and 1992 to the elimination of fish in one reservoir in the autumn of 1989 is the subject of this preliminary report. Osprey nest site occupancy, foraging parameters (e.g., dive success and prey delivery rates) and reproductive success are compared between the two reservoirs (rotenone treated versus control with no treatment).

U.S. OSPREY NESTING DISTRIBUTION 'TO HACK OR NOT TO HACK'

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Osprey (*Pandion haliaetus*) once nested throughout most of the United States. The decline in the osprey population due to biocide use is well documented, as is their recovery following the U.S. ban on DDT in 1972. Henny reported the nesting distribution and abundance of osprey in the U.S. and noted a general increase in the population. However, due to a strong natal site fidelity, inland dispersal had been slow or nonexistent in states with low or extirpated populations. Therefore, in the early 1980s hacking was initiated as a technique for population restoration. In 1988 Rymon conducted a survey of eleven U.S. states

known to have attempted osprey hacking projects. His data indicated that hacking was a viable method for accelerating the slow dispersal of this species. Several other states have inquired about the feasibility of initiating their own hacking programs. In an attempt to best address this issue, we have conducted a nationwide nesting survey updating Henny's 1981 data and constructed a model of current nesting dispersal patterns. We have determined that in states where osprey nesting populations had been low, nesting pairs have increased as much as tenfold, and in Pennsylvania where hacking was initiated in 1980, nesting pairs have increased from 0–19. Eight states that had recorded no known nesting pairs in 1981, now have osprey nesting as a result of hacking projects, and/or natural dispersal. The question remains, should areas where dispersal is slow choose hacking or waiting as a method of recovery?

HOME RANGE SIZE AND FORAGING HABITAT PATTERNS OF RED-SHOULDERED HAWKS IN MANAGED PINE FORESTS OF GEORGIA

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In the southeastern United States, emphasis on production of pine timber continues to reduce riparian woodland, an important habitat of the red-shouldered hawk (*Buteo lineatus*), to narrow corridors and streamside management zones. Loss or alteration of riparian habitat has contributed to regional declines in this hawk throughout its range. Without knowledge of its space and foraging habitat requirements in the Southeast, it is difficult to predict or mitigate impacts to the species and its habitats. Therefore, movements of five male and two female red-shouldered hawks fitted with posture-sensitive radiotransmitters were monitored on a 5000-ha study area in the Piedmont physiographic region of eastcentral Georgia March to July 1994. Hawk home ranges were estimated based on harmonic mean isopleths and minimum convex polygons. A digital database created with the geographic information system ARC/INFO was used to determine macrohabitat characteristics within home ranges. Selection of foraging habitats was determined by comparing the proportion of observed habitat use, based on the number of radio locations within each habitat, with the proportion of available habitat within hawk home ranges. Vegetative structure and physiography of habitats at both foraging and random locations are also examined.

BALD EAGLE SURVEYS IN ALASKA'S CHILKAT VALLEY, 1984–94

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